

Assignment #4 – “An evaluation of several point-of-care tools” (2006)

Clinical question: In healthy elderly male siblings of men who have died from a ruptured abdominal aortic aneurysm (AAA), what screening techniques are most effective to determine the risks for developing AAA?

Domain: screening or diagnosis

Which tools seem to answer the question?

- > In *ACP PIER*, entry of “abdominal aortic aneurysm” led to two choices – “Diseases” and “Screening for abdominal aortic aneurysm”. These sections were last updated in August, 2006. The “Diseases” information provides a very good synthesis, particularly under “Screening”. Here different and rated recommendations are made that include a synopsis of the evidence, linked to a reference list: 5 RCTs are included. More indepth information is also found in the “Screening” document mentioned above. This report addresses “population at risk” in detail, as well as the “effectiveness/harms of screening tests”. Evidence ratings as well as links to the articles (linked to *PubMed*) are included. Citations include a systematic review. *Very good resource: provides rapid, current, well-structured overview of recommendations supported by current evidence, at various levels of complexity for residents.*
- > In *UptoDate*, a straightforward search for “abdominal aortic aneurysm” led to “Screening for abdominal aortic aneurysm”, current through April, 2006. Under “epidemiology and risk factors” there is a summary, including family history and links to the list of references. “Screening tests” and “effectiveness of screening” are also relevant, with the effectiveness section containing reference to large randomized trials and systematic reviews. The “summary and recommendations” at the end presents a concise overview of the findings, including information related to screening directly relevant to this question. Unfortunately, the reference list is not linked. *Provides well-organized comprehensive information. Search for publications in last 6 months may be necessary.*
- > In *InfoPOEMS*, entry of “abdominal aortic aneurysm” led to “aneurysm (aortic)”. “5 Minute Clinical Consult overviews” listed “Aneurysm of the abdominal aorta” which has many pertinent sections. References are listed, including a systematic review, but each statement is not specifically linked to the evidence. Under “Practice Guidelines” is a submission, revised in 2005, that specifies recommendations regarding screening, rated at the highest level of evidence: the companion documents includes a systematic review. “Screening and Prevention” also lists a number of summaries that include level of evidence as well as links to *PubMed*. *This tool provides concise, synthesized summaries/recommendations and opportunities for further reading by residents, but requires significant diligence to look at each article. May require database search for 2005+.*
- > One could certainly obtain pertinent and high level evidence through *OVID EBM Reviews* (e.g., “abdominal aortic aneurysm” AND screen\$) but requires time and expertise needed to create the search and review the results. *A good choice to update findings from other tools.*
- > In *FirstConsult*, an easy search for “abdominal aortic aneurysm” found a relevant document, last update June 13, 2006. While “Work-up” gives information about family history and test summaries it is not tied to the evidence. “Prevention-screening” leads to a good overview of the recommendations, with a link to rated, evidence based medicine. *Unfortunately, the information is somewhat buried and difficult to find.*
- > *Dynamed* provided current (updated October 5, 2006), comprehensive and relevant information. *Usability hampered by embedded bullets and dense text that makes it difficult to access quickly.*
- > *Clinical Evidence* provided only a passing mention to “aortic aneurysm” as a possible risk for people with hypertension, and the references were quite dated. *Not helpful for this clinical question.*

Clinical question: For elderly women diagnosed with diffuse large B-cell lymphoma, what is the relative effectiveness and prognostic issues of different treatment options?

Domain: therapy and/or prognosis

Which tools seem to answer the question?

- > A search of “diffuse large B-cell lymphoma” in *UptoDate* led to a document by that name, current to April 2006. “Treatment of aggressive non-Hodgkin’s lymphoma”, which includes diffuse large B-cell lymphoma, led to “diagnostic and therapeutic principles”. Under the early and advanced stage disease sections, there was comprehensive information about treatment options and factors impacting prognosis, all linked to articles. The best section was “Older patients” that addressed both treatment and prognosis, articulating clear recommendations. The statements are linked to numerous studies, including RCTs and systematic reviews. *Very good, focused evidence based answer to this clinical question. Updated search for last 6 months may be necessary.*
- > *Clinical Evidence* search of “diffuse large B-cell lymphoma” led to an exact match, current since April 2005. The “first line treatment option” led to a concise overview of “beneficial” and “less than beneficial” treatments that includes a summary, benefits, and harms. The evidence was rated and included RCTs and systematic reviews. The “Comment” section was excellent for this question, as it summarized the findings of a systematic review specific to older populations. *A very good, concise synthesis of the evidence, especially helpful if physician is looking for brief summaries. May need updated search for last 6 months.*
- > Entry on “diffuse large B-cell lymphoma” in *FirstConsult* leads to a number of choices: the third, “Non-Hodgkin’s’ lymphoma (NHL)” highlights the search term, ‘diffuse large B-cell lymphoma’ and explains that this type of lymphoma falls under the NHL umbrella. It was last updated January 2006. Under “treatment” there is a concise summary of the options, followed by “a discussion of “medication and other therapies”, that summarizes the evidence and links to the literature that includes a systematic review focused on older patients. Under “prognosis”, age is mentioned in both the “factors affecting prognosis” and “treatment failure”. A link to a clinical practice guideline is focused precisely on the question, and discusses treatment of older people as well as prognosis. *A well-organized resource that answers the question, although it may take some time to search. The medical student needs to ensure that any findings relate to this particular subset of lymphomas. Updated search may be needed.*
- > A search for “diffuse large B-cell lymphoma” in *OVID All EBM* returned 38 articles: combining with terms related to the elderly reduced this number to 16. While not all were relevant, a large number directly related to this topic, and comprised clinical trials, randomized trials and reviews. *This would be a good source if the resident was interested in looking at primary/secondary sources, but may take more time to assimilate the content. A good tool to update searches.*
- > The search in *ACP Pier* led to “aggressive non-Hodgkin’s lymphoma”, but with a number of highlighted mentions of the specific lymphoma under question. It was last updated in June, 2006. Under “drug therapy”, there was specific mention of “diffuse large B-cell lymphoma” and a summary of the evidence that included a study about older patients, rated the highest level of evidence. *Cumbersome interface that takes time to search, and no section focused on outcome or prognosis.*
- > A *DynaMed* search for “diffuse large B-cell lymphoma” easily led to “diffuse large cell NHL”, updated September 12, 2006. While the subsections “prognosis” and “treatment” were applicable, there was no mention of age in the under prognosis. Under treatment, there was mention of two studies related to treatment/survival in elderly patients. *Only partially answers the question, and takes time to read due to the dense text and scattered entries.*
- > The search in *InfoPOEMS* led to quite different terms than the question specified. *Not helpful.*

Clinical question: *In children with acute otitis media, what drug treatments, including over the counter drugs (OTC) and antibiotics, are most effective with minimal side effects?*

Domain: therapy

Which tools seem to answer the question? (most useful in more detail)

- > Browsing under “Child Health” in *Clinical Evidence* led to “otitis media in children (acute)” (updated January, 2006), and the relevant subheading “treatments for acute otitis media”. Result screen was very simple, offering choices relating to analgesics and antibiotics, with each treatment categorized according to its harms and benefits in those situations. The links led to concise well-organized summaries of the evidence, including RCTs and systematic reviews, and provided good information related to the clinical question. Includes links to *PubMed*. *Quickly accessed, well-organized, concise summary of available evidence. Updated search for January + would be needed.*
- > *The UpToDate* search under the “Pediatric Medicine” heading led to “treatment of acute otitis media”, updated April 2006. The information was comprehensive with a specific pediatric focus. A number of sections were relevant to this clinical question, including antibiotic therapy versus observation and antimicrobial therapy. References to evidence (include RCTs, systematic reviews and meta-analysis) are made throughout the document: some sections include summaries, which are particularly useful. While the TOC helps the reader navigate the article, it is lengthy with inconsistent section subheadings, and contains no links to *PubMed*/full text. *Good focused source for the pediatrician looking for in-depth coverage, although takes some time to assimilate content. Search for publications in last 6 months may be necessary.*
- > In *FirstConsult*, the keyword search led to “acute and chronic otitis media”, updated January 6, 2006. The heading “Therapeutic options”—“Medications and other therapies” lists ten therapeutic choices, with links to information about risks, side effects, adverse effects and further reading (*MD Consult*). The “summary of evidence” section is very useful, and includes links to EBM citations, which include RCTs, systematic reviews and a meta-analysis. The information is not specifically focused on pediatrics, although children feature prominently and the section “Special patient groups” discusses children. *Very good overview of the evidence and would be a helpful starting point for this research. Must ensure information is related to “acute” condition. Updated search for January + needed.*
- > *OVID EBM Reviews* answers the question, however, it would involve search experience on the part of the pediatrician (e.g., combine “acute otitis media” AND (drug therap\$ OR drug treatment\$) AND (child\$ OR pe?diatric\$), limit to “Review” publications for all EBM Reviews or limit to “systematic reviews for CDSR. *If time/expertise permits and the pediatrician wanted primary articles, this would be a good source. Also a good tool to update findings from other tools.*
- > *InfoPoems* led to a “5 Minute Clinical Consult overview”, with some good summary information (e.g., “Drug(s) of Choice”), although the conclusions were not linked to the actual evidence. The pediatrician would have to scroll down to “Treatment” – “Drug Treatment”, to “antibiotics for acute otitis media in children” and “decongestants and antihistamines for acute otitis media in children”, summaries two useful and applicable Cochrane systematic reviews. *Not as easily accessible, but two reports were highly relevant and a high level of evidence.*
- > *DynaMed*’s “acute otitis media” “Treatment overview” and “Medications” sections had current (updated 10/05/06) information directly related to the question. *The usefulness of this tool is hampered by its lack of focus on pediatrics; the awkward and complex bullet formatting that makes it difficult to read; and the fact that not all entries are linked to the evidence.*
- > *ACP PIER* did not have specific articles related to “acute otitis media”, only “otitis media with effusion”, a chronic condition. *Not helpful for this clinical question.*